Author Index to Volume 17

Abuin, E. See Lissi, E., 329
Aharoni, S. M.
—; Walsh, E. K.: Rigid Backbone Polymers. III. Partitioning of Isocyanate Polymers Between Isotropic and Anisotropic Phases, 321
Akiyama, F.
—; Tatsuta, R.; Matsuda, M.: Reductive Copolymerization of Sulfur Dioxide with Alkanedithiol, 23
Anzai, J. See Ueno, A., 149
Arai, S. See Ogasawara, M., 649
Araki, T. See Maruyama, K., 697; Tsukube, H., 437
—; Tsukube, H.: Reaction Control with A New Oligomer Matrix. I. Mono-N-Benzylation of p-Phenylenediamine, 501

Bailar, J. C.
Review of *Inorganic Polymers*. N. H. Ray, 471
Bard, A. J. See Kraeutler, B., 535
Barham, P. J.
—; Keller, A.: The Achievement of High-Modulus Polyethylene Fibers and the Modulus of Polyethylene Crystals, 591
Baughman, R. H.
—; Hsu, S. L.: Static Lattice Calculations for Cis-Polyacetylene, 185
Beaver, R. H. See Roberts, D. R., 155
Berardinelli, F. M. See Collins, G. L., 667
Bhadani, S. N.
—; Prasad, Y. K.: Polymerization of Acrylamide with Nitric Acid, 493
Billmeyer, F. W., Jr.
Review of *Coloring of Plastics—Theory and Practice*. Mukhtar Ahmed, 682
Blackwell, J.
—; Ross, M.: X-ray Studies of the Structure of Polyurethane Hard Segments, 447
Bohdanecky, M. See Nystrom, B., 543
Born, L. See Hocker, J., 723
Boue, F. See Williams, C. E., 379
Bowman, L. M.
—; Cha, C. Y.: Solution Properties of Poly(N,N-Diallyldimethylammonium Chloride), 167
Brant, P. See Snow, A., 263
Butler, G. B. See Matyjaszewski, K. A., 65; Wagener, K. B., 129

Caldwell, J. D. See Daly, W. H., 55
Cha, C. Y. See Bowman, L. M., 167
Chanzy, H.
—; Dube, M.; Marchessault, R. H.: Crystallization of Cellulose with N-methylmorpholine N-oxide: A New Method of Texturing Cellulose, 219
Chappas, W. J.
—; Silverman, J.: The Effects of Trace Fillers on the Radiation-Induced Crosslinking of Polyethylene, 5
Chen, H. Y. See Lal, J., 95
Cheu, E.-L. See Osawa, Z., 409
Cheung, P.-S. R.
—; Roberts, C. W.: Photophysical Processes in Dimethyl 2,6-Naphthalenedicarboxylate and Poly(ethylene 2,6-naphthalenedicarboxylate), 227
Chiang, C. K. See Park, Y. W., 195
Chien, J. C. W. See Wnek, G. E., 779
Ciferri, A. See Krigbaum, W. R., 601
Collins, G. L.
—; Greene, R. K.; Berardinelli, F. M.; Garruto, W. V.: Observations on the Initiation of Trioxane with Boron Trifluoride Dibutyl Etherate, 667
Corneliussen, R. D. See Lustiger, A., 269
Cotton, J. P. See Williams, C. E., 379
Cowie, J. M. G.
—; Haq, Z.; McEwen, I. J.: Independent Relaxation of Alkyl Side Chains in Poly(di-n-Heptyl Itaconate): Evidence for a Double Glass Transition, 771
Crivello, J. V.
—; Lam, J. H. W.: Triarylsulfonium Salts as Photoinitiators of Free Radical and Cationic Polymerization, 759

Daly, R. C. See Martic, P. A., 305
Daly, W. H.
—; Caldwell, J. D.: Influence of Quaternary Ammonium Salts on Cellulose Benzylation, 55
Daoud, M. See Williams, C. E., 379
De, S. K. See Kumaran, M. G., 399
Dechter, J. J.
—; Mandelkern, L.: ^{13}C Spin-Lattice Relaxation for Linear Polyethylene Crystallized from Dilute Solution, 317
deGennes, P. G. See Williams, C. E., 379
De Paoli, M. A.
—; Tamashito, I.; Galembeck, F.: Photochemical Reactions in Polymeric Matrices: The Photopolymerization of Vinylacetate in a Polytetrafluorethylene Matrix, 391
Destor, C.
—; Rondelez, F.: Sedimentation Velocity of Polymers in Good Solvents, 527
Dionisio, J. M.
—; O'Driscoll, K. F.: High-Conversion Copolymerization of Styrene and Methyl Methacrylate, 701
Doraiswamy, L. K. See Kulkarni, M. G., 713
Drauglis, E. See Hassell, J. A., 111
Druy, M. A. See Park, Y. W., 195; Wnek, G. E., 779
Dube, M. See Chanzy, H., 219
Dumitrescu, S.
—; Grigoras, M.; Natansohn, A.: Diels-Alder Polymerization of Two Anthracene Monomers, 553
Dumitrescu, Sv. See Simionescu, C. I., 287
DuPre, D. B. See Patel, D. L., 299

Eichinger, B. E.
—; Martin, J. E.: Molecular Description of the

Dynamics of Branched and Crosslinked Molecules, 209
El-Aasser, M. S. See Misra, S. C., 567
Era, K. See Takezoe, H., 415

Farid, S. See Martic, P. A., 305
Farnoux, B. See Williams, C. E., 379
Fedors, R. F. See Sarbolouki, M. N., 629
A Universal Reduced Glass Transition Temperature for Liquids, 719
Feldman, D.
Review of *Durability of Macromolecular Materials.* R. K. Eby, 681
Fenyo, J. C. See Muqbill, R., 369
Fesciyan, S. See Frisch, H. L., 309
Fouassier, J-P. See Merlin, A., 709
Frank, H. P.
Review of *Fibre Cements and Fibre Concretes.* D. J. Hannant, 464
Frisch, H. L.
—; Fesciyan, S.: DNA Phase Transitions. The π Transition of Single Coils, 309
Fujihara, H.
—; Yamazaki, K.; Yoshihara, M.; Maeshima, T.: Asymmetric Induction by the Radical Copolymerization of Styrene with Maleic Anhydride in *l*-Menthol, 507
Fujimura, H. See Ogata, N., 753
Fujita, K. See Tabushi, I., 357
Fujita, T.
—; Yoshioka, T.: Studies on Stable Free Radicals. XV. Copolymerization of Stable N-Oxyl Biradical with α-Chloro-p Xylylene, 353
Fukuda, A. See Takezoe, H., 415
Furukawa, M.
—; Yokoyama, T.: A New Method For the Determination of Allophanate Concentration in Polyurethane Networks, 175

Galembeck, F. See De Paoli, M. A., 391
Gargallo, L. See Lissi, E., 329
Garruto, W. V. See Collins, G. L., 667
Gelashvili, Ts. L. See Korshak, V. V., 115
Go, S. See Kloos, F., 161
Gotoh, T.
—; Yamamoto, M.; Nishijima, Y.: Photoinduced Ionic Dimerization and Polymerization of Styrene Derivatives, 143
Greene, R. K. See Collins, G. L., 667
Gressier, J.-C. See Levesque, G., 281
Grigoras, M. See Dumitrescu, S., 553; Simionescu, C. I., 287
Guillet, J. E. See Holden, D. A., 15
Gupta, A. K.
—; Veena: An Anomaly in the Viscosity Behavior of Poly-γ-benzyl-L-glutamate in Dioxane, 47

Han, C. D.
Review of *Polymer Rheology.* R. S. Lenk, 468
Review of *Developments in Polymer Characterization—1.* J. W. Dawkins, Ed., 469
Haq, Z. See Cowie, J. M. G., 771
Hasegawa, M. See Nakanishi, H., 459
Hassell, J. A.
—; Sliemers, F. A.; Drauglis, E.; Nance, G. P.: Computer Manipulation and Subtraction of GPC Chromatograms, 111
Hayashi, K. See Irie, M., 29
Hayashi, S.
—; Kobayashi, M.; Shirai, H.; Hojo, N.: Temperature Effect of Color Complex of Poly(vinyl acetate) with Iodine-Iodide, 91
Hayashi, Y. See Yamamoto, T., 181
Heeger, A. J. See Park, Y. W., 195; Wnek, G. E., 779
Henderson, C. P.
—; Williams, M. C.: A Model for Triblock Copolymer Rheology, 257
Hirotsu, T.
Plasma-Induced Polymerization of Tridecylmethacrylate and Octadecylmethacrylate in The Liquid Phase, 687
Hocker, J.
—; Born, L.: The Structure of Two Modifications of the MDI-Bismethylurethane as a Model Substance for Hard Segments in Polyurethane Elastomers, 723
Hocker, R. G. See Kraeutler, B., 535
Hogen-Esch, T. E.
—; Tien, C. F.: Stereochemistry of Anionic Oligomerization of Vinyl Monomers. VI. Low-Molecular-Weight Stereoregular Polymers of 2-Vinylpyridine Prepared with Li Salts as Initiators in THF, 431
Hojo, N. See Hayashi, S., 91; Shirai, H., 343, 661
Holden, D. A.
—; Guillet, J. E.: Photochemical Synthesis of New Polymer Structures. I. Polyesters of Fumaric Acid, 15
Hsu, S. L. See Baughman, R. H., 185
Hummel, D. O.
Review of *Applications of Polymer Spectroscopy.* Edward G. Brame, Jr., Ed., 245

Ii, M. See Imai, Y., 85, 579
Ikeda, S. See Park, Y. W., 195
Imai, Y.
—; Kato, A.; Ii, M.; Ueda, M.: Synthesis of Aliphatic Polysulfides by Phase-Transfer-Catalyzed Polycondensation of Dibromoalkanes with Dithiols, 579
—; Ueda, M.; Ii, M.: Synthesis of Aromatic Polyether By Phase-transfer-catalyzed Polycondensation with Quaternary Ammonium Salts, Crown Ethers, and Poly(ethylene glycol)s, 85
Imamura, M. See Ogasawara, M., 649
Imoto, M.
—; Ouchi, T.; Nakamura, Y.; Morita, E.; Yamada, M.; Tokuyama, Y.; Obata, H.; Iwamoto, T.: Vinyl Polymerization. 380. Radical Polymerization Initiated with *Saccharomyces cerevisiae*, 347
Inoue, H. See Tsukube, H., 437
Irie, M.
—; Menju, A.; Hayashi, K.; Smets, G.: Reversible Viscosity Change of Photochromic Spirobenzopyran Copolymer Solutions, 29
Ito, K. See Yamashita, Y., 1
Iwamoto, R.
—; Ohta, K.; Mima, S.: Laser Raman Spectra of Stereoregular Poly(methyl Methacrylate)s: Tacticity-Sensitive Bands, 441
Iwamoto, T. See Imoto, M., 347
Iwao, K. See Yamashita, Y., 1

Jackel, K.-P.
Review of *Silicones under the Monogram—A Story of Industrial Research.* Herman A. Liebhafsky with Sybil Small Liebhafsky and George Wise, 465
Jain, R. K.
—; Simha, R.: High-Pressure Isotherms of Polyethylene Crystals, 33
Jannink, G. See Williams, C. E., 379
Jellinek, H. H. G.
Review of *Polymer Degradation and Stability, Vol. 1, No. 1.* N. Grassie, Ed., 467

Kalal, J.
—; Svec, F.; Zachoval, J.; Kubat, J.: The Application of Pyrolysis Gas Chromatography in the Analysis of the Distribution of Dyad Sequences in Copolymers of the Vinyl Type, 691
Kalinin, V. N. See Korshak, V. V., 115
Kamiya, T.
—; Shinohara, I.: Electric Conductivity of TCNQ Salts of Ionenes Containing Cyclohexane Ring in the Main Chain, 641
Kanamoto, T. See Zachariades, A. E., 485
Karasz, F. E. See Wnek, G. E., 779
Kato, A. See Imai, Y., 579
Kato, M.
—; Yoneshige, Y.: Photocrosslinkable Polymers Bearing Pendant Triple Bonds, 79
Keller, A. See Barham, P. J., 591
Kloos, F.
—; Go, S.; Mandelkern, L.: Swelling of Solution-Formed Polyethylene Crystals of Low Molecular Weight, 161
Kobayashi, K. See Shirai, H., 343, 661
Kobayashi, M. See Hayashi, S., 91
Kojima, M.
Growth Front of Polypropylene Spherulites, 609
Kolawole, E. G.
—; Mathieson, S. M.: Dimerization of Polymethacrylic Acid in Solution, 573
Komarov, S. M. See Korshak, V. V., 115
Korshak, V. V.
—; Teplyakov, M. M.; Gelashvili, Ts. L.; Komarov, S. M.; Kalinin, V. N.; Zhakharkin, L. I.: Synthesis and Investigation of Polymers on the Basis of 4,4′-Diacetyldibenzylcarboranes, 115
Korus, R. A. See Rosser, R. W., 635
Koyama, Y. See Uryu, T., 673
Kraeutler, B.
—; Reiche, H.; Bard, A. J.; Hocker, R. G.: Initiation of Free Radical Polymerization by Heterogeneous Photocatalysis at Semiconductor Powders, 535
Krigbaum, W. R.
—; Salaris, F.; Ciferri, A.; Preston, J.: Aromatic Polyamides Forming Cholesteric Phases, 601
Kubat, J. See Kalal, J., 691
Kulkarni, M. G.
—; Mashelkar, R. A.; Doraiswamy, L. K.: Falsification of the Kinetics of Azobisisobutyronitrile Decomposition, 713
Kumaran, M. G.
—; Mukhopadhyay, R.; De, S. K.: Network Structure of Lignin-Filled Natural Rubber Vulcanizate, 399
Kunert, K. A.
Ultrasonic Investigation of Crosslinked Polyethylene, 363
Kuze, E. See Takezoe, H., 415
Kwong, H. See Rosser, R. W., 635

Lal, J.
—; Chen, H. Y.; Sandstrom, P. H.: Synthesis and Characterization of Polymers of 1,4-Hexadienes, 95
Lam, J. H. W. See Crivello, J. V., 759
Lando, J. B. See Weinhold, S., 585
Larrabee, C. E., Jr.
—; Sprague, E. D.: Radiation-Induced Polymerization of Sodium 10-Undecenoate in Aqueous Micelle Solutions, 749
Levesque, G.
—; Gressier, J.-C.: Room Temperature Synthesis and Characterization of Aliphatic Polythioamides, 281
Lichatowich, D. K. See McCormick, C. L., 479
Lissi, E.
—; Abuin, E.; Gargallo, L.; Radic, D.: Unusual Photoluminescent Behavior of Phenyl Methacrylate Copolymers, 329
Litt, M. H. See Weinhold, S., 585
Lohse, M. I. See Wool, R. P., 385
Lustiger, A.
—; Corneliussen, R. D.: Environmental Stress Crack Growth in High-Density Polyethylene, 269

MacDiarmid, A. G. See Park, Y. W., 195; Wnek, G. E., 779
Maeshima, T. See Fujihara, H., 507; Yamashita, N., 521
Mandelkern, L. See Dechter, J. J., 317; Kloos, F., 161
Marchessault, R. H. See Chanzy, H., 219
Mark, J. E.
Review of *Polymer Solution Properties: Part I—Statistics and Thermodynamics*. J. J. Hermans, Ed., 247
Martic, P. A.
—; Daly, R. C.; Williams, J. L. R.; Farid, S.: Decreased Stabilization Energy of Excimers and Exciplexes in Polymeric Matrices, 305
Martin, J. E. See Eichinger, B. E., 209
Maruyama, A. See Shirai, H., 661
Maruyama, K.
—; Tsukube, H.; Araki, T.: Oligomer Catalyst. II. Octameric Oligo[1-(N-phenylcarbamoyl)aziridine]–Copper Catalyst for Quinone Dehydrogenation of 2,6-Xylenol, 697
Mashelkar, R. A. See Kulkarni, M. G., 713
Mathieson, S. M. See Kolawole, E. G., 573
Matsuda, M. See Akiyama, F., 23
Matsuo, S. See Tabushi, I., 357
Matsuzaki, K. See Uryu, T., 673
Matyasjewski, K. A. See Wagener, K. B., 129
Matyjaszewski, K. A.
—; Wagener, K. B.; Butler, G. B.: Novel Polymer Systems Via A 1,4-Dipolar Rearrangement Mechanism. II. Reaction of Bistriazolinediones with α-Substituted Bisenol Esters, 65
Mazzei, A. See Roggero, A., 125
McCormick, C. L.
—; Lichatowich, D. K.: Homogeneous Solution Reactions of Cellulose, Chitin, and Other Polysaccharides to Produce Controlled–Activity Pesticide Systems, 479
McEwen, I. J. See Cowie, J. M. G., 771
Menju, A. See Irie, M., 29
Merlin, A.
—; Fouassier, J-P.: Photoinitiated Polymerization of MMA and Excited States of the Initiators, 709
Mima, S. See Iwamoto, R., 441
Misra, S. C.
—; Pichot, C.; El-Aasser, M. S.; Vanderhoff, J. W.: Effect of Emulsion Polymerization Process on the Morphology of Vinyl Acetate–Butyl Acrylate Copolymer Latex Films, 567
Moan, M. See Williams, C. E., 379
Morawetz, H.
Review of *Physicochemical Aspects of Protein Denaturation*. Savo Lapanje, 106
Morita, E. See Imoto, M., 347
Mosher, R. A. See O'Reilly, J. M., 731
Mukhopadhyay, R. See Kumaran, M. G., 399
Muller, G. See Muqbill, R., 369
Muqbill, R.
—; Muller, G.; Fenyo, J. C.; Selegny, E.: High-Molecular-Weight Water-Soluble Polyelectrolytes. III. Preparation and Properties of Poly(acrylamido N-Glycolic Acid), 369
Murakami, Y. See Suzuki, T., 241

Nagashima, K. See Osawa, Z., 409
Nakamura, A. See Tsukube, H., 437
Nakamura, Y. See Imoto, M., 347
Nakanishi, H.
—; Hasegawa, M.; Sasada, Y.: On the Space Group of Poly-2,5-Distyrylpyrazine, 459
Nance, G. P. See Hassell, J. A., 111
Nandi, U. S. See Singh, M., 121
Natansohn, A. See Dumitrescu, S., 553
Nierlich, M. See Williams, C. E., 379
Nishii, Y. See Yamashita, N., 521
Nishijima, Y. See Gotoh, T., 143
Nystrom, B.
—; Sundelof, L.-O.; Bohdanecky, M.; Petrus, V.: Influence of Branching on Sedimentation Behavior in Concentrated Polymer Solutions, 543

Obata, H. See Imoto, M., 347
O'Driscoll, K. F. See Dionisio, J. M., 701
Ogasawara, M.
—; Arai, S.; Imamura, M.: Radiation-Induced Polymerization of Nitroethylene as Studied by Low-Temperature Pulse Radiolysis, 649
Ogata, N.
—; Sanui, K.; Fujimura, H.: Active Transport Membrane for Anion, 753
Ohshima, H. See Osawa, Z., 409
Ohta, K. See Iwamoto, R., 441; Okamoto, Y., 293
Okamoto, Y.
—; Suzuki, K.; Ohta, K.; Yuki, H.: Mechanism of the Asymmetric-Selective Polymerization of (RS)-α-Methylbenzyl Methacrylate Initiated by the Cyclohexylmagnesium Chloride- or Bromide-(—)-Sparteine System, 293
O'Reilly, J. M.
—; Mosher, R. A.: Freezing of Conformational States of Poly(vinyl Chloride) Under Pressure, 731
Osa, T. See Ueno, A., 149
Osawa, Z.
—; Nagashima, K.; Ohshima, H.; Cheu, E.-L.: Study of the Degradation of Polyurethanes. VI. The Effect of Various Additives on the Photodegradation of Polyurethanes, 409
Ouchi, T. See Imoto, M., 347

Park, Y. W. See Wnek, G. E., 779
—; Druy, M. A.; Chiang, C. K.; MacDiarmid, A. G.; Heeger, A. J.; Shirakawa, H.; Ikeda, S.: Anisotropic Electrical Conductivity of Partially Oriented Polyacetylene, 195
Patel, D. L.
—; DuPre, D. B.: Electric Field-Induced Phase Transitions in Polypeptide Liquid Crystals, 299
Patel, G. N.
—; Walsh, E. K.: Polydiacetylenes: Solution Conformation Characteristics, 203
Pearce, E. M.
Review of *Additives for Plastics (New Developments).* Raymond B. Seymour, Ed., 464
Review of *Developments in Polymerization—1.* R. N. Haward, Ed., 683
Review of *Introduction to Macromolecular Chemistry, 2nd ed.* H. Batzer and F. Lohse, 683
Percec, V. See Simionescu, C. I., 287, 421
Peterlin, A.
Review of *Polymer Fracture.* H. H. Kausch, 470
Peters, E. N.
—; Stewart, D. D.: D_2-m-Carborane-Siloxanes. IX. A New and Convenient Synthesis from m-Carborane, 405
Petrus, V. See Nystrom, B., 543
Pichot, C. See Misra, S. C., 567
Picot, C. See Williams, C. E., 379
Pielichowski, J.
—; Starzyk, F.: Electric Properties of New Charge-Transfer Complexes: Poly(N-Vinylhalogencarbazoles) with 2,4,7-Trinitro-9-Fluorenone, 623
Pizzi, A.
Phenolic Resins by Reactions of Coordinated Metal Ligands, 489
Platzer, N.
Review of *Spezialplaste.* K.-U. Buhler, 40
Review of *Advances in Polymer Science (28).* H. J. Cantow, Ed., 466
Porter, R. S. See Zachariades, A. E., 255, 277, 485
Prasad, Y. K. See Bhadani, S. N., 493
Preston, J. See Krigbaum, W. R., 601
Proni, A. See Roggero, A., 125

Radic, D. See Lissi, E., 329
Reiche, H. See Kraeutler, B., 535
Rinaudo, M. See Williams, C. E., 379
Roberts, C. W. See Cheung, P.-S. R., 227
Roberts, D. R.
—; Beaver, R. H.: Synthesis and Characterization of Vinylidene Chloride Telomers, 155
Robertson, R. E.
Possible Complications in Using Scanning Calorimetry to Determine the Enthalpic State of Aged Polymer Glasses, 213
Roggero, A.
—; Salvatori, T.; Proni, A.; Mazzei, A.: Study of the Interaction Between α-Sulfonyl Carbanion and Propylene Sulfide, 125
Rondelez, F. See Destor, C., 527
Ross, M. See Blackwell, J., 447
Rosser, R. W.
—; Korus, R. A.; Shalhoub, I. M.; Kwong, H.: Synthesis of Perfluoroalkylether Oxadiazole Elastomers, 635
Rowland, T. J. See Wool, R. P., 385
Roy, R.
Review of *Science of Materials.* Witold Brostow, 539
Rubin, I. I.
Review of *Plastics Process Engineering.* James L. Throne, 539

Salaris, F. See Krigbaum, W. R., 601
Salvatori, T. See Roggero, A., 125
Sandstrom, P. H. See Lal, J., 95
Sanechika, K. See Yamamoto, T., 181
Sanui, K. See Ogata, N., 753
Sarbolouki, M. N.
—; Fedors, R. F.: Ultrathin Films as Photomechanical Transducers, 629
Sasada, Y. See Nakanishi, H., 459
Schick, M. J.
Review of *Surface and Colloid Science.* E. Matijevic, Ed., 743
Selegny, E. See Muqbill, R., 369
Seung, S. L. N.
—; Young, R. N.: Preparation of a Diblock Copolymer of Isobutyl Vinyl Ether and 2-Methyl-2-oxazoline, 233
Shalhoub, I. M. See Rosser, R. W., 635
Shen, M. See Soong, D., 595
Sherman, E. S. See Zachariades, A. E., 255
Shewmon, P. G.
Review of *Thin Films—Interdiffusion and Reactions.* J. M. Poate, K. N. Tu, and J. W. Mayer, Eds., 39
Shinohara, I. See Kamiya, T., 641
Shirai, H. See Hayashi, S., 91
—; Maruyama, A.; Kobayashi, K.; Hojo, N.; Urushido, K.: Synthesis and Catalaselike

Activity of Polystyrene-Bonded Fe(III)-Phthalocyanine, 661
—; Kobayashi, K.; Takemae, Y.; Hojo, N.: Synthesis of Novel Polyimides Containing Metal-Phthalocyanine Ring, 343
Shirakawa, H. See Park, Y. W., 195
Shirane, K.
Radiation-Induced Free Radicals of Epoxy Resin, 139
Siesler, H. W.
Characterization of Deformation Phenomena in Polymers by Rapid-Scanning Fourier Transform Infrared (FTIR) Spectroscopy and Mechanical Measurements. I. The Stress-Induced Crystalline Phase Transition in Polybutyleneterephthalate, 453
Silverman, J. See Chappas, W. J., 5
Simha, R. See Jain, R. K., 33
Simionescu, C. I.
—; Percec, V.: Polypentadeuterophenylacetylene Isomers, 421
—; Dumitrescu, Sv.; Grigoras, M.; Percec, V.: Synthesis and Polymerization of Aromatic Groups Containing Propiolic Esters, 287
Singh, M.
—; Nandi, U. S.: Thermal Degradation of Polystyrene in Air, 121
Sliemers, F. A. See Hassell, J. A., 111
Smets, G. See Irie, M., 29
Snow, A.
—; Brant, P.; Weber, D.; Yang, N.-L.: ESR Study of Polyacetylene, 263
Soong, D.
—; Shen, M.: A Kinetic Network Model for Nonlinear Viscoelastic Flow Properties of Entangled Monodisperse Polymers, 595
Sprague, E. D. See Larrabee, C. E., Jr., 749
Starzyk, F. See Pielichowski, J., 623
Staverman, A. J.
Review of *Science and Technology of Rubber.* F. R. Eirich, Ed., 105
Stein, R.
Review of *Polymer Solution Properties. Part II. Hydrodynamics and Light Scattering.* J. J. Hermans, Ed., 105
Stewart, D. D. See Peters, E. N., 405
Stockmayer, W. H.
Review of *Thermodynamics of Polymerization.* Hideo Sawada, 246
Stringham, R. S. See Toy, M. S., 561
Sundelof, L.-O. See Nystrom, B., 543
Suzuki, K. See Okamoto, Y., 293
Suzuki, T.
—; Murakami, Y.; Takegami, Y.: Synthesis of Block Copolymers of Poly(methyl methacrylate) and Polyoxirane: A New Initiator System, 241
Svec, F. See Kalal, J., 691

Tabushi, I.
—; Fujita, K.; Matsuo, S.: Structural Requirement of Phosphonitrile-Polyol Copolymer for Effective Hydrolysis by Alkaline Phosphatase, 357
Takegami, Y. See Suzuki, T., 241
Takemae, Y. See Shirai, H., 343
Takezoe, H.
—; Fukuda, A.; Kuze, E.; Era, K.: Raman Circular Polarization Difference Spectra ($I_+ - I_{min}$) Excited by Circularly Polarized Laser Radiation in Atactic Polystyrene, 415
Tamashito, I. See De Paoli, M. A., 391
Tanaka, R. See Tsutsui, T., 511
Tanaka, T. See Tsutsui, T., 511
Tatsuta, R. See Akiyama, F., 23
Teh, J. W.
—; White, J. R.: Fracture Surfaces Produced by Monotonic and Cyclic Loading of Low-Density Polyethylene, 737
Teplyakov, M. M. See Korshak, V. V., 115
Theil, M. H.
Review of *Ultra-High Modulus Polymers.* A. Ciferri and I. M. Ward, Eds., 744
Tien, C. F. See Hogen-Esch, T. E., 431
Tokunaga, E. See Tomono, T., 335
Tokuyama, Y. See Imoto, M., 347
Tomono, T.
—; Yoshida, S.; Tokunaga, E.: Isolation of Plasma Proteins by High-Performance Liquid Chromatography, 335
Toy, M. S.
—; Stringham, R. S : Copolymerization of Pentafluoropyridine, 561
Tsukube, H. See Araki, T., 501; Maruyama, K., 697
—; Araki, T.; Inoue, H.; Nakamura, A.: Nonclassical Urea Oligomers. VI. Oligomeric N-(Phenylthiocarbamoyl)-Ethylenimine: A New Selective Absorbent of Cu^{2+} and Hg^{2+} Ions, 437
Tsutsui, T.
—; Tanaka, R.; Tanaka, T.: Liquid Crystalline Order in Polymer Composites Prepared from Poly(γ-Butyl L-Glutamate)–Butyl Acrylate Liquid Crystalline System, 511

Ueda, M. See Imai, Y., 85, 579
Ueno, A.
—; Anzai, J.; Osa, T.: Thermal Isomerization of Azoaromatic Residues in the Side Chain of Polypeptides, 149
Urushido, K. See Shirai, H., 661
Uryu, T.
—; Koyama, Y.; Matsuzaki, K.: Cationic, Ring-Opening Polymerization of 3,5-Anhydro-1,2-O-Isopropylidene-α-D-Xylofuranose, 673

Vanderhoff, J. W. See Misra, S. C., 567
Veena. See Gupta, A. K., 47
Vinogradov, G. V.
Review of *Structure and Strength of Polymers.* V. E. Gul', 107

Wagener, K. B. See Matyjaszewski, K. A., 65
—; Matyasjewski, K. A.; Butler, G. B.: Novel Polymer Structures Via a 1,4-Dipolar Rearrangement Mechanism. I. Reaction of Bistriazolinediones with Divinyl Esters, 129
Walsh, E. K. See Aharoni, S. M., 321; Patel, G. N., 203
Watarai, S.
Synthesis and Properties of Poly(3,6-N-Alkylcarbazolyl Methylene), 655
Watts, M. P. C. See Zachariades, A. E., 485
Weber, D. See Snow, A., 263
Weinhold, S.
—; Litt, M. H.; Lando, J. B.: Oriented Phase III Poly(vinylidene Fluoride), 585
Weiss, P.
Review of *Wetting, Spreading and Adhesion.* J. F. Padday, Ed., 463
Review of *Polymer Stress Reactions, Volume 2—Experiments.* A. Casale and R. S. Porter, 745
Wendorff, J. H.
Enthalpy Relaxation and Thermal Density Fluctuations, 765
White, J. R. See Teh, J. W., 737

Williams, C. E.
—; Nierlich, M.; Cotton, J. P.; Jannink, G.; Boue, F.; Daoud, M.: Polyelectrolyte Solutions: Intrachain and Interchain Correlations Observed by SANS, 379
Williams, J. L. R. See Martic, P. A., 305
Williams, M. C. See Henderson, C. P., 257
Wnek, G. E.
—; Chien, J. C. W.; Karasz, F. E.; Druy, M. A.; Park, Y. W.; MacDiarmid, A. G.; Heeger, A. J.: Variable-Density Conducting Polymers: Conductivity and Thermopower Studies of a New Form of Polyacetylene: $(CH)_x$, 779
Wolff, C. See Williams, C. E., 379
Wool, R. P.
—; Lohse, M. I.; Rowland, T. J.: Broad-Line NMR Studies of Deformation and Recovery in Hard Elastic Polypropylene, 385

Yamada, M. See Imoto, M., 347
Yamamoto, A. See Yamamoto, T., 181
Yamamoto, M. See Gotoh, T., 143
Yamamoto, T.
—; Sanechika, K.; Hayashi, Y.; Yamamoto, A.: A Novel Type of Polycondensation Utilizing Transition Metal-Catalyzed C–C Coupling. II. Preparation of Polymethylene From α,ω-Dibromo-n-Alkanes By Using Copper Catalysts, 181
Yamashita, N.
—; Nishii, Y.; Maeshima, T.: Anionic Polymerizabilities of 2-Vinyl-1,3-Dioxolane and 2-Vinyl-1,3-Dioxane, 521
Yamashita, Y.
—; Iwao, K.; Ito, K.: Cationic Oligomerization of Styrene Oxide, 1
Yamazaki, K. See Fujihara, H., 507
Yang, N.-L. See Snow, A., 263
Yokoyama, T. See Furukawa, M., 175
Yoneshige, Y. See Kato, M., 79
Yoshida, S. See Tomono, T., 335
Yoshihara, M. See Fujihara, H., 507
Yoshioka, T. See Fujita, T., 353
Young, R. N. See Seung, S. L. N., 233
Yuki, H. See Okamoto, Y., 293

Zachariades, A. E.
—; Porter, R. S.: Deformation of Plasticized Nylon 6 With Ammonia by Solid-State Extrusion, 277
—; Sherman, E. S.; Porter, R. S.: Orientation of Polystyrene by Solid-State Coextrusion, 255
—; Watts, M. P. C.; Kanamoto, T.; Porter, R. S.: Solid-State Extrusion of Polymer Powders Illustrated with Ultrahigh-Molecular-Weight Polyethylene, 485
Zachoval, J. See Kalal, J., 691
Zhakharkin, L. I. See Korshak, V. V., 115
Zimm, B. H.
Review of *Polymer Solution Properties: Part I—Statistics and Thermodynamics, Part II—Hydrodynamics and Light Scattering.* J. J. Hermans, Ed., 679

Subject Index to Volume 17

Acrylamide copolymerization with MMA, HNO_3 initiated, 493
—, polymerization by HNO_3, 493
Active transport membrane for anion, 753
Alkaline phosphatase, hydrolysis of, 357
Allophanates, in polyurethanes, determination, 175
3,5-Anhydro-1,2-O-isopropylidene-α-D-xylofuranose, ring-opening polymerization of, 673
Anionic polymerization, of 2-vinylpyridine, stereochemistry of, 431
—, of 2-vinyl-1,3-dioxolane and 2-vinyl-1,3-dioxane, 521
Anion transport membrane, active, 753
Anomalous kinetics of AIBN decomposition, 713
9-Anthrylmethylpropiolate, 287
Aromatic polyamides forming cholesteric phases, 601
Asymmetric induction, of copolymerizations, 507
Azoaromatic residues, in polypeptides, isomerization of, 149
Azobisisobutyronitrile decomposition, anomalous kinetics of, 713
Azo compounds, as stabilizer against photodegradation, 409

Benzotriazole (Tinuvin 326), as stabilizer against photodegradation, 409
Benzylation, cellulose, 55
Binding, metal ion, by urea oligomers, 437
Bis(4-chloro-3-nitrophenyl)sulfone, polycondensation with bisphenol A, 85
Bisenol esters, α-substituted, 65
Bis(fluoroxy)difluoromethane, copolymers of, with pentafluoropyridine, 561
Bismethylurethane-MDI, as model for hard segments in polyurethane elastomers, 723
Bisphenol A, polycondensation with bis(4-chloro-3-nitrophenyl)sulfone, 85
Bistriazolinediones, reaction with divinyl esters, 129
—, reaction with α-substituted bisenol esters, 65
Book reviews, 39, 40, 105, 106, 107, 245, 246, 247, 463, 464, 465, 466, 467, 468, 469, 470, 471, 539, 679, 681, 682, 683, 743, 744, 745
Boron trifluoride dibutyl etherate, initiation of trioxane polymerization by, 667
Branched and crosslinked molecules, dynamics of, 209
Branching, effect on sedimentation in concentrated solutions, 543
Brice-Phoenix spectrophotometer, 321
Butyl acrylate–poly(γ-butyl-L-glutamate), composites from liquid crystals containing, 511
Butyl acrylate–vinyl acetate, copolymer latex films, morphology of, 567
(50% butyl + 50% p-anisole-3-propyl)isocyanate, 321

Calorimetry, 765
—, scanning, complications in, 213
Catalaselike activity of polystyrene-bonded Fe(III)-phthalocyanine, 661
Catalysts, organoaluminum–titanium halide, 95
—, titanium halide–organoaluminum, 95
Cationic, ring-opening polymerization of 3,5-anhydro-1,2-O-isopropylidene-α-D-xylofuranose, 673
Cationic polymerization, of substituted epoxides, 1
—, triarylsulfonium salts as photoinitiators in, 759
Cellulose, benzylation, phase transfer catalysts in, 55
—, controlled-release pesticides based on, 479
—, crystallization, 219
—, modification, 55
—, N-methylmorpholine-N-oxide as solvent, 219
—, texturing, 219
Charge-transfer complexes, electrical properties of, 623
—, poly(N-vinylhalogencarbazoles) with 2,4,7-trinitro-9-fluorenone, 623
Chemiluminescence, See luminescence, chemi-
Chitin, controlled-release pesticides based on, 479
α-Chloro-p-xylylene, copolymers with N-oxyl biradicals, 353
Cholesteric phases, formation by aromatic polyamides, 601
Chromatography, liquid, high-performance, 335
Circular polarized, difference spectra, Raman, excitation by circularly polarized laser radiation, 415
^{14}C-labeled 2,2-dimethoxy-2-phenylacetophenone, 709
^{13}C-NMR, 317
—, high resolution, 155
Coextrusion, HDPE with nylon 6, 277
—, HDPE with polystyrene, 255
—, nylon 6 with HDPE, 277
—, polystyrene with HDPE, 255
—, solid state, 255, 277
Composites, poly(γ-butyl-L-glutamate)–butyl acrylate liquid crystal, 511
Computer manipulation, GPC data, 111
Conducting polymers, variable density, 779
Conductivity, electrical, of TCNQ salts of ionenes, 641
—, electrical, polyacetylene, 195
—, of new form of polyacetylene, 779
Conformation, of polydiacetylenes, 203
Conformational states of poly(vinyl chloride), freezing of under pressure, 731
Controlled-release pesticides, polysaccharide based, 479
Coordinated metal ligands, coordinated phenolic resins by reaction of, 489
Copolymerization, of pentafluoropyridine, 561
—, of styrene and methyl methacrylate, high-conversion, 701
—, of styrene with maleic anhydride in *l*-menthol, asymmetric induction in, 507
Copolymers, block, rheology of, 257

—, isobutyl vinyl ether–2-methyl-2-oxazoline, 233
—, methyl methacrylate–oxirane, 241
—, 2-methyl-2-oxazoline–isobutyl vinyl ether, 233
—, N-hydroxyethyl acrylamide with methyl methacrylate, 753
—, N-hydroxyethyl acrylamide with styrene, 753
—, N-oxyl biradicals with α-chloro-p-xylylene, 353
—, oxirane–methyl methacrylate, 241
—, phenyl methacrylate, photoluminescence of, 329
—, vinyl, dyad sequence distribution in, 691
Couette viscometer, 591
Crack, stress, growth in HDPE, 269
Crosslinked molecules, dynamics of, 209
Crown ethers, as phase transfer catalysts, 85
Crystallization of cellulose, 219
Crystals, polyethylene, swelling of, 161
^{13}C spin-lattice relaxation, for linear polyethylene, 317
Cyclic oligomers, 1

Deformation, of plasticized nylon 6, 277
Deformation and recovery of hard elastic polypropylene, 385
Deformation characterization, by FTIR, 453
Degradation, thermal, polystyrene, 121
Deuterated sodium polystyrene sulfonate, 379
4,4′-Diacetyldibenzylcarboranes, synthesis of and polymers from, 115
Diblock copolymer, 233
α,ω-Dibromo-n-alkanes, polycondensation of, Cu catalyzed, 181
Diels-Alder polymerization of two anthracene monomers, 553
2,4-Dihydroxybenzophenone, as stabilizer against photodegradation, 409
Dilatometry, 765
Dimerization, styrene derivatives, photo-, 143
—, in polymethacrylic acid in solution, 573
2,2-Dimethoxy-2-phenylacetophenone, ^{14}C-labeled, excited states in, 709
Dimethyl 2,6-naphthalenedicarboxylate, photophysical processes in, 227
Di-n-butyldithiocarbamate, Zn or Ni, as stabilizer against photodegradation, 409
1,4-Dipolar rearrangement mechanism, 65
Divinyl esters, reaction of bistriazolinediones with, 129
D_2-m-Carborane-siloxanes, synthesis from m-carborane, 405
DNA, phase transitions in, 309
DSC, 635, 771
Dyad sequence distribution, in vinyl copolymers, 691

Electrical conductivity, polyacetylene, 195
—, of TCNQ salts of ionenes containing cyclohexane ring in the main chain, 641
Electric field-induced phase transitions, in polypeptide liquid crystals, 299
Electric properties of new charge-transfer complexes, 623
Electron spin resonance, See ESR,
Emulsion polymerization, butyl acrylate with vinyl acetate, 567
—, vinyl acetate with butyl acrylate, 567
Enthalpy relaxation and thermal density fluctuations, 765
Environmental stress crack growth, in high-density polyethylene, 269
Episulfides, polymerization of, 125
Epoxy resins, irradiated, 139
ESR, 139, 535
—, study of polyacetylene, 263
9-Ethynylanthracene, Diels-Alder polymerization of, 553
Excimers, in polymeric matrices, stabilization energy of, 305
Exciplexes, in polymeric matrices, stabilization energy of, 305

Fe(III)-phthalocyanine, PS-bonded, catalaselike activity and synthesis of, 661
Fillers, effect on radiation-induced crosslinking of polyethylene, 5
Films, ultrathin, as photomechanical transducers, 629
FIRFT, 317
Flory–Krigbaum dilute polymer solution theory, 309
9-Fluorenylpropiolate, 287
Fluorescent copolymers, soluble, 353
Formaldehyde, reactions with N-alkylcarbazoles, 655
Fourier transform infrared spectroscopy, See FTIR
Fracture surfaces produced by monotonic and cyclic loading of low-density polyethylene, 737
Free radical polymerization, triarylsulfonium salts as photoinitiators in, 759
Free radicals, stable, 353
FTIR, deformation characterization by, 453
—, spectroscopy, 731
Fumaric acid, photocycloaddition of phenanthrene to, 15

Glass transition, double, evidence for, 771
Glass transition temperature, universal, for liquids, 719
GLC, 95
GPC, 479
—, data, computer manipulation of, 111
Grignard reagent–sparteine system, stereoselective polymerization by, 293
Growth front of polypropylene spherulites, 609

HDPE, coextrusion with nylon 6, 277
—, coextrusion, with polystyrene, 255
—, stress crack growth in, 269
Heterogeneous photocatalysis at semiconductor powders, initiation of free radical polymerization by, 535
1,4-Hexadienes, polymerization of, 95
High-resolution ^{13}C-NMR, 155
HPLC, 335

Independent relaxation of alkyl side chains in poly(di-n-heptyl itaconate), 771
Initiators, in MMA polymerization, excited states of, 709
Instron testing machine, 485
Iodine-iodide, complex with poly(vinyl acetate), 91
Ionenes, containing cyclohexane rings, TCNQ salts of, electrical conductivity of, 641
Ionic di- and polymerization, styrene derivatives, photo-, 143
IR, 95, 479
γ-Irradiation, of epoxy resins, 139
Isobutyl vinyl ether, copolymer with 2-methyl-2-oxazoline, 233
Isocyanate polymers, partitioning between isotropic and anisotropic phases, 321
Isotherms, high pressure of polyethylene crystals, 33

Kinetic network model for nonlinear viscoelastic flow of entangled monodisperse polymers, 595

Laser radiation, circularly polarized, Raman circular polarization spectra by, 415
Laser raman spectra of stereoregular poly(methyl methacrylate)s, 441
Lattice calculations, static, cis-polyacetylene, 185
Leitz polarized light microscope, 321
Light scattering, of polymethacrylic acid solutions, 573
Lignin-filled natural rubber, vulcanized, 399
Ligno-sulfonate, See lignin
Liquid crystalline order in polymer composites, 511
Liquid crystals, containing poly(γ-butyl-L-glutamate)–butyl acrylate, 511
—, polypeptide, phase transitions in, 299
Liquids, universal glass transition temperature for, 719
Low-temperature pulse radiolysis, 649
Luminescence, chemi-, in polyesters, 227
—, photo-, 329

Maleic anhydride, copolymerization with styrene, asymmetric induction in, 507
m-Carborane, D_2-m-carborane-siloxanes from, 405
MDI-bismethylurethane, as model for hard segments in polyurethane elastomers, 723
—, modifications of, 723
Mechrolab membrane osmometer, 321
Membrane, active transport, for anions, 753
Mesomorphic behavior, polyisocyanate polymers, 321
Metal ion binding, by urea oligomers, 437
Metal ligands, coordinated, phenolic resins by reaction of, 489
[(Methylene-di-4,1-phenylene)biscarbmic acid-dimethylester], See MDI-bismethylurethane,
Methyl methacrylate, copolymerization with acrylamide, HNO_3 initiated, 493
—, copolymerization with styrene, high conversion, 701
—, copolymers with N-hydroxyethyl acrylamide, 753
—, copolymer with oxirane, 241
—, heterogeneous photocatalytic polymerization of, 535
—, photoinduced polymerization of, 709
—, radical polymerization initiated by *Saccharomyces cerevisiae*, 347
2-Methyl-2-oxazoline, copolymer with isobutyl vinyl ether, 233
Mono-N-benzylation of p-phenylenediamine, 501
Morphology of vinyl acetate–butyl acrylate copolymer latex films, 567

N-Alkylcarbazoles, reactions with HCHO, 655
Nametre direct readout viscometer, 321
Neutron scattering, small-angle, 379
N-Hydroxyethyl acrylamide, copolymers with styrene or MMA, 753
Nitroethylene, radiation-induced polymerization of, 649
N-Methylmorpholine N-oxide, solvent for cellulose, 219
NMR, 95, 155, 219, 321, 479
—, broad line, polypropylene, hard elastic, 385
—, ^{13}C-, 317, 673
—, ^{14}N-, 167
—, proton, 421, 635
—, proton and ^{13}C, 673
^{14}N-NMR, 167
Nonclassical urea oligomers, 437
Nonlinear viscoelastic flow, of entangled monodisperse polymers, model for, 595
N-Oxyl biradicals, copolymers with α-chloro-p-xylene, 353
1-(N-Phenylcarbamoyl)aziridine, oligomers, reaction control by, 501
N-(Phenylthiocarbamoyl)-ethylenimine, oligomeric, metal ion binding by, 437
Nylon 6, coextrusion with HDPE, 277
—, plasticized, deformation of, 277

Octadecyl methacrylate, plasma polymerization of, 687
Oligomer, matrix, reaction control by, 501
—, catalyst, 697
—, of 2-vinylpyridine, anionically prepared, 431
Oligomeric N-(phenylthiocarbamoyl)-ethylenimine, 437
Oligomerization, cationic of styrene oxide.1
Oligo[1-(N-phenylcarbamoyl)aziridine], reaction control by, 501
Oligo[1-(N-phenylcarbamoyl)aziridine]–copper, catalyst for quinone dehydrogenation of 2,6-xylenol, 697
Orientation, of polystyrene, by solid-state coextrusion, 255
Oriented phase III poly(vinylidene fluoride), 585
Oxadiazole-perfluoroalkylether elastomers, 635
Oxirane, copolymer with methyl methacrylate, 241
Ozone resistant polymers, 95

Partitioning, polymers, between iso- and anisotropic phases, 321
Pentafluoropyridine, copolymers of, with bis(fluoroxy)difluoromethane, 561
Perfluoroalkylether oxadiazole elastomers, synthesis of, 635
Perfluoroalkylether-1,3,5-triazine, 635
Pesticides, controlled-release, polysaccharide based, 479
Phase transfer catalysts (PTC), 55, 85
Phase-transfer-catalyzed polycondensation, preparation of polysulfides by, 579
Phase transitions, electric field-induced, polypeptide crystals, 299
Phenolic resins by reactions of coordinated metal ligands, 489
Phenyl methacrylate copolymers, photoluminescent behavior of, 329
Phosphatase, alkaline, hydrolysis of, 357
Phosphonitrile-polyol copolymer, for hydrolysis by alkaline phosphatase, structural requirement of, 357
Photocatalysis, heterogeneous, polymerization by, 535
Photochemical reactions in polymeric matrices, 391
Photochemical synthesis of new polymer structures, 15
Photochromic comonomers, effect on conformation of copolymers, 29
Photocrosslinkable polymers, 79
Photocycloaddition of phenanthrene to polyesters of fumaric acid, 15
Photodegradation, light stabilizers in, 409
—, of polyurethanes, 409
Photoinduced conformational change, 29
Photoinduced polymerization, of MMA, 709
Photoinitiated free radical and cationic polymerization, triarylsulfonium salts in, 759
Photoluminescent behavior, of phenyl methacrylate copolymers, 329
Photomechanical transducers, ultrathin films as, 629
Photophysical processes, in polyesters, 227

Photopolymerization of vinylacetate in a polytetrafluorethylene matrix, 391
4(1-Phrenyl)butyrate, excimers and exciplexes from, 305
Phthalocyanines, carboxyl containing, 343
—, metal-, polymers containing, 343
Plasma-induced polymerization of tridecylmethacrylate and octadecylmethacrylate, 687
Plasma proteins, isolation by HPLC, 335
Polyacetylenes, 79
—, $(CH)_x$, conductivity and thermopower studies of, 779
—, $(CH)_x$, new form of, 779
—, cis-, static lattice calculations for, 185
—, electrical conductivity of,, 195
—, ESR study of, 263
Poly(acrylamido N-glycolic acid), 369
Polyamides, aromatic, cholesteric phase forming, 601
Poly-γ-benzyl-L-glutamate, anomalous viscometric behavior in dioxane, 47
—, liquid crystals, phase transitions in, 299
Polybutyleneterephthalate, stress induced crystalline phase transition in, FTIR characterization of, 453
Poly(γ-butyl-L-glutamate)–butyl acrylate, composites from liquid crystals containing, 511
Polycondensation, phase transfer catalysis of, 85
—, phase-transfer-catalyzed, preparation of polysulfides by, 579
—, transition metal catalyzed, 181
Polydiacetylenes, solution conformation characteristics, 203
Poly(di-n-heptyl itaconate), independent relaxation of alkyl side chains in, 771
Poly-2,5-distyrylpyrazine, on the space group of, 459
Polyelectrolytes, poly(acrylamido N-glycolic acid), 369
Polyethers, aromatic, synthesis of, 85
Polyethylene, crosslinked, ultrasonic investigation of, 363
—, crosslinking of, radiation induced, 5
—, crystals, high-pressure isotherms of, 33
—, crystals, modulus of, 591
—, crystals, swelling of, 161
—, fibers, high modulus, 591
—, linear, ^{13}C spin-lattice relaxation for, 317
—, low density, fracture surfaces of, 737
—, ultrahigh molecular weight, solid-state extrusion of, 485
Poly(ethylene glycol)s, as phase transfer catalysts, 85
Poly(ethylene 2,6-naphthalenedicarboxylate), photophysical processes in, 227
Poly(1,4-hexadienes), preparation of, 95
Polyhexylisocyanate, 321
Polyimides, containing metal-phthalocyanine ring, 343
Polymerization, Diels-Alder, of anthracene monomers, 553
—, plasma, liquid phase, 687
—, plasma, of alkyl methacrylates, 687
—, radiation-induced, of sodium 10-undecenoate, 749
Polymers, conducting, polyacetylenes, 779
—, containing metal-phthalocyanines, 343
—, ozone resistant, 95
—, photocrosslinking of, 79
Polymethacrylic acid, dimerization in solution, 573
Polymethylene, from α,ω-dibromo-n-alkanes, Cu catalyzed, 181
Poly(methyl methacrylate), effect of polychromic comonomers on, 29
—, sedimentation behavior of, 543
—, stereoregular, laser Raman spectra of, 441
Poly(3,6-N-alkylcarbazolyl methylene), synthesis and properties of, 655
Poly(N,N-diallyldimethylammonium chloride, solution properties of, 167
Poly(N-vinylhalogencarbazoles), charge-transfer complexes with 2,4,7-trinitro-9-fluorenone, 623
Polyol-phosphonitrile copolymer, for hydrolysis of alkaline phosphatase, 357
Poly(p-aminobenzoic acid-co-valine), preparation of, 601
Polypentadeuterophenylacetylene isomers, 421
Polypeptide liquid crystals, phase transitions in, 299
Polypeptides, azoaromatic residues, isomerization of, 149
Polyphenylacetylene, perdeuterated, isomers of, 421
Polypropylene, hard elastic, deformation and recovery, 385
—, spherulites, growth front of, 609
Polysaccharides, controlled-release pesticides based on, 479
Polystyrene, atactic, circularly polarized laser Raman difference spectra, 415
—, coextrusion, with HDPE, 255
—, Friedel-Crafts reaction with 4,4′,4″,4‴-tetracarboxyphthalocyanine, 661
—, thermal degradation of, 121
—, UV irradiated, 111
Polystyrene-bonded Fe(III)-phthalocyanine, synthesis and cataloselike activity of, 661
Poly(styrene sulfonate), deuterated, 379
Polysulfides, aliphatic, preparation by phase-transfer-catalyzed polycondensation, 579
Polytetrafluorethylene, matrix for photopolymerization of vinylacetate, 391
Polythioamides, aliphatic, room temperature synthesis of, 281
Poly[2-(triphenylmethoxy)ethyl methacrylate], sedimentation behavior of, 543
Polyurethane elastomers, hard segments, x-ray studies of, 447
—, MDI-bismethylurethane as model for hard segments in, 723
Polyurethanes, allophanates in, determination of, 175
—, photodegradation of, 409
Poly(vinyl acetate), complex with iodine-iodide, 91
—, determination by iodine complex, 91
Poly(vinyl chloride), freezing of conformational states, under pressure, 731
Poly(vinylidene fluoride), oriented phase III, 585
Poly(vinylsulfonic acid), 167
p-Phenylene diamine, mono-N-benzylation of, reaction control by oligomer matrix in, 501
Propargyl 4-vinylphenyl ethers, polymers from, 79
Propiolic esters, aromatic, synthesis and polymerization of, 287
Propylene sulfide, interaction with α-sulfonyl carbanion, 125
Proteins, plasma, isolation by HPLC, 335
Proton NMR, 155
Pyrolysis gas chromatography, 691

Quaternary ammonium salts, as phase transfer catalysts, 55, 85

Radiation-induced crosslinking of polyethylene, 5
Radiation-induced free radicals of epoxy resin, 139
Radiation-induced polymerization of nitroethylene, 649
Radiation-induced polymerization of sodium 10-undecenoate in aqueous micelle solutions, 749
Radiolysis, pulse-, low temperature, of nitroethylene, 649

Raman circular polarization difference spectra, laser radiation excitation in, 415
Raman spectra, laser, of stereoregular poly(methyl methacrylate)s, 441
Reaction control with a new oligomer matrix, 501
Rearrangement, novel polymers by, 129
—, novel polymers via, 65
Reductive copolymerization, of sulfur dioxide with alkanedithiol, 23
Relaxation, independent, in alkyl side chains of poly(di-n-heptyl itaconate), 771
Rheology of block copolymers, 257
Rheometer, Instron, 255
Rigid backbone polymers, 321
Ring-opening polymerization, alkyl iodide catalyzed, 233
—, of 3,5-anhydro-1,2-O-isopropylidene, α-D-xylofuranose, 673
(RS)-α-methylbenzyl methacrylate, stereoselective polymerization of, 293
Rubber, natural, lignin-filled, 399

Saccharomyces cerevisiae, radical polymerization initiated by, 347
Scattering, light, of polymethacrylic acid solutions, 573
—, neutron, 379
Sedimentation, concentrated solutions, branching effect on, 543
Sedimentation velocity of polymers in good solvents, 527
SEM, 269, 737
—, of polypropylene spherulites, 609
Semiconducting polymers, polyacetylene, 195
Solid-state extrusion of polymer powders, 485
Sparteine–Grignard reagent system, stereoselective polymerization by, 293
Spherulites, polypropylene, growth front of, 609
Spirobenzopyran copolymer solutions, 29
Stabilization energy of excimers and exciplexes in polymeric matrices, 305
Stabilizers, against photodegradation, 409
Steady-shear viscometry, 257
Stereoregular oligomers, of 2-vinylpyridine, anionic preparation of, 431
Stereoregular poly(methyl methacrylate)s, laser Raman spectra of, 441
Stereoselective polymerization, Grignard reagent–sparteine initiated, 293
—, of (RS)-α-methylbenzyl methacrylate, 293
Stress crack, growth, in HDPE, 269
Styrene, copolymerization with maleic anhydride, asymmetric induction in, 507
—, copolymerization with methyl methacrylate, high conversion, 701
—, copolymers with N-hydroxyethyl acrylamide, 753
, derivatives, photodi- and polymerization of, 143
, oxide, cationic polymerization of, 1
4,Substituted-1,2,4-triazoline-3,5-diones, 129
α-Sulfonyl carbanion, interaction with propylene sulfide, 125
Sulfur dioxide, copolymerization with alkanedithiol, 23
Swelling, polyethylene crystals, 161

Tacticity-sensitive bands, in laser Raman spectra, 441
Telomers, vinylidene chloride, 155
θ Temperature, 309
4,4′,4″,4‴-Tetracarboxyphthalocyanine, 661
7,7,8,8-Tetracyanoquinodimethane (TCNQ) salts, of ionenes, electrical conductivity of, 641
Texturing cellulose, new method of, 219
TGA, 635
Thermal degradation, of polystyrene in air, 121
Thermal density fluctuations, 765
Thermal isomerization of azoaromatic residues in polypeptides, 149
Thermopower, of new form of polyacetylene, 779
Tinuvin 326, See benzotriazole
Transducers, photomechanical, ultrathin films as, 629
π Transition of single coils, DNA, 309
Triarylsulfonium salts as photoinitiators of free radical and cationic polymerization, 759
Triblock copolymers, methyl methacrylate and oxiraine, 241
—, rheology, 257
Tridecyl methacrylate, plasma polymerization of, 687
2,4,7-Trinitro-9-fluorenone, charge-transfer complexes with poly(N-vinylhalogencarbazoles), 623
9-(2,4,7-Trinitrofluorenyl) propiolate, 287
Trioxane initiation of polymerization of, by boron trifluoride dibutyl etherate, 667

Ubbelohde viscometer, 493
Ultrasonic investigation of crosslinked polyethylene, 363
10-Undecenoic acid, sodium salt, radiation-induced polymerization of, 749
Universal reduced glass transition temperature for liquids, 719
UV, 479

Valine, copolymer with p-aminobenzoic acid, 601
Variable-density conducting polymers, 779
Velocity, sedimentation, in good solvents, 527
Vinyl acetate, photopolymerization of, 391
Vinyl acetate-butyl acrylate copolymer latex films, morphology of, 567
9-Vinylanthracene, Diels-Alder polymerization of, 553
Vinyl copolymers, dyad sequence distribution in, 691
2-Vinyl-1,3-dioxane, anionic polymerization of, 521
2-Vinyl-1,3-dioxolane, anionic polymerization of, 521
Vinylidene chloride telomers, synthesis and characterization of, 155
Vinyl polymerization, radical polymerization initiated with *Saccharomyces cerevisiae*, 347
2-Vinylpyridine, anionic polymerization of, stereochemistry of, 431
Viscoelastic flow, nonlinear, of entangled monodisperse polymers, model for, 595
Viscosity, dilute solution, 167
—, steady-shear, 257
Vulcanized natural rubber, lignin-filled, 399

Water-soluble polymers, 369

X-ray diffraction, cis-polyacetylene, 185
X-ray studies of the structure of polyurethane hard segments, 447
2,6-Xylenol, quinone dehydrogenation of, catalyst for, 697

Yang plot, 573

Zimm plots, 573